



# New Haven Rail Yard – Component Change Out Shop

# **Project Number 301-0106**



#### **Project Description:**

This project provides a 293,000 square foot main shop and office complex for the New Haven Rail Yard, and provides the major maintenance functions for Connecticut's commuter rail fleet, as well as housing administrative and security functions. This major facility consists of a maintenance shop with 13 car spots on 3 tracks with overhead cranes and floor lifts to allow easy removal of major car components (trucks, HVAC units, pantographs), support shops to repair and maintain the major car components, parts storage facilities, offices and welfare facilities for employees, a training facility, a security suite with command center and MTA police offices, CTDOT offices, and a communications hub. Site work includes utility and track connections, driveways, security fencing, catenary, and illumination. The project includes a Central Distribution Warehouse utilizing a high density automatic storage and retrieval system (ASRS), located adjacent to the Component Change Out Shop, for the overall New Haven Line to serve as the main distribution point for stores material for the storerooms contained within the individual shops, as well as for major components of the M-8 cars.

### **Project Team:**

Project Management: CTDOT District 1A Construction Office

Project Designer: PB Americas, Inc.
General Contractor: O&G Industries, Inc.

#### **Project Status:**

The project is currently under construction. Project stages include:

Design: Completed March 18, 2009 and approved by CTDOT & MNR

Award: December 11, 2009Notice to Proceed: January 25, 2010

#### **Project Milestones:**

Milestone	Original Schedule	Current Schedule
<b>Building Shell Complete</b>	October 7, 2011	August 31, 2013
Glass Storefront Entry Complete	October 7, 2011	April 7, 2014 *
Commissioning Complete	September 13, 2012	September 1, 2014 *
Construction Complete	October 11, 2012	November 26, 2014 *
Equip. Move & Operational	May 31, 2013	May 26, 2015 *

<sup>\*</sup> The CCO Construction Completion Date is currently at risk. The Department is working with all parties to accelerate current and future activities to mitigate accumulated past delays.





**Financial Summary:** 

Funding: \$29.9 million ARRA:

> FTA: \$94.5 million State: \$96.3 million

Original Project Budget: \$194.6 million Current Project Budget:

\$220.7 million Administration, Utilities, CE&I Consultant, Metro-North

Flagging & Force Account, and includes \$26.1 million for

(Budget includes Construction Contractor, Construction

Construction Cost to Date: \$162.7 million Central Distribution Warehouse)

# **Challenges and Risks:**

# Schedule Risk

- The construction schedule for the Component Change Out Shop has been extended to accommodate resolution of issues related to underground utilities in the main shop area, final steel framing details, building siding installation, glass curtain wall installation, drywall/interior finish details, and interior wall reconfiguration to allow HVAC system continuity. The transition time between construction and operations, which includes small equipment set-up and stocking parts, will be carefully planned to minimize this time. A Transition Team, comprised of representatives from all stakeholders, has been formed to address this challenge.
- The addition of the Central Distribution Warehouse to the project scope must be carefully integrated with the ongoing project work to minimize schedule impacts.

#### **Budget Risk**

Scope changes or revisions are being minimized or avoided whenever possible.

#### Risk to Operations

Several elements of the Project must interface with existing infrastructure, such as tracks, catenary, power distribution or communication circuits. These impacts must be closely coordinated to cause the least disruption to ongoing rail yard operations.

# **Interfaces with Other Projects**

The CCO represents the critical path project for all subsequent NHRY projects. CCO Utility installations are also required for the Wheel True Facility. The subsequent Yard Power Upgrade project is within the footprint of the CCO work area.

### **Major components completed to date:**

- Vision Trail relocated and rehabilitated
- Traction Power Substation building & conduit
- Main AC electrical vaults (3) and ductbank to Hallock Substation
- Metro-North communications by-pass
- Public utilities relocation
- 13.5KV circuits
- Building piles, foundation, lift caissons & pits
- Catenary foundations
- Building shear walls
- Major building steel framing
- Overhead ductwork in RR shop
- Commenced hoist equipment installation
- Overhead and High Speed doors installed
- Grade-level slabs & elevated slabs on deck
- **Building roofing**
- Precast concrete siding panels

- Metal wall panel installation (95% complete)
- Exterior windows
- Generator and transformer pads and units
- Skylights over Running Repair shop
- Interior CMU construction (95% complete)
- Paved west end access roads
- Commenced site work on east end
- OH Cranes in Truck shop, RR shop and 2<sup>nd</sup> floor
- Translucent panels on north façade
- Paving Binder complete except around ASRS
- ASRS Warehouse piles & foundation
- FRP Grating Installation in Shop
- Erected ERVs & RTUs & main units on roof
- Yard water/fire main installed and tested
- L1 bypass work
- West Apron Track Approaches
- Power to Building to 1<sup>st</sup> floor electric room